

# SHEET METAL HANDLING

Transporting, turning, swivelling: Intelligent handling technology with vacuum for metal processing.



LIFTING  
FIXING MOVING  
VACUUM LIFTING TECHNOLOGY

# HORIZONTAL TRANSPORT

## METAL IS OUR ELEMENT: VACUUM LIFTER HORIZONTAL TRANSPORT

The movement of sheet metal in the metal processing industry is a common, but mostly complicated process. Sheet metal can be perfectly used with vacuum technology because of their uniform dimensions and the smooth, non-slip surface. Discover the advantages of our **standard vacuum lifter** for the horizontal transport!



### APPLICATION

- Horizontal handling of large sheet metal, plastic panels, coated wood panels and glass panes
- Dimensions from 1,000 x 230 mm to 3,300 x 1,500 mm
- Load capacity from 150 kg to 2,000 kg
- Loading and unloading of laser cutting systems or processing machines
- Loading and unloading of storage places and racks

### YOUR BENEFITS

- Gentle handling - no scratching
- Universally effective, even with non-magnetisable materials
- Robust long-term solution, low maintenance and process reliability
- Low follow-up costs, energy-saving and durable
- More satisfied employees through physical relief

### EXTENSIONS FOR INDIVIDUALIZATION

- Automatic switch-off, reduces energy consumption
- Motor protection switch, extends the service life
- Additional visual warning signals, increase safety
- Angled operating handle, increases mobility
- Individually lockable suction plates and crossbars
- Crane holding bag, simplifies the operation
- Expanded control panel, provides simplified guidance
- Individual suction plates and seals for your needs
- Industry 4.0 features: Status query and error messages can be transferred via smartphone or touch panel
- Parking feet
- Cargo lighting
- ... and much more.



#### Picture description

Fig. 1: AERO ADVANCE version • Fig. 2-5: Standard version

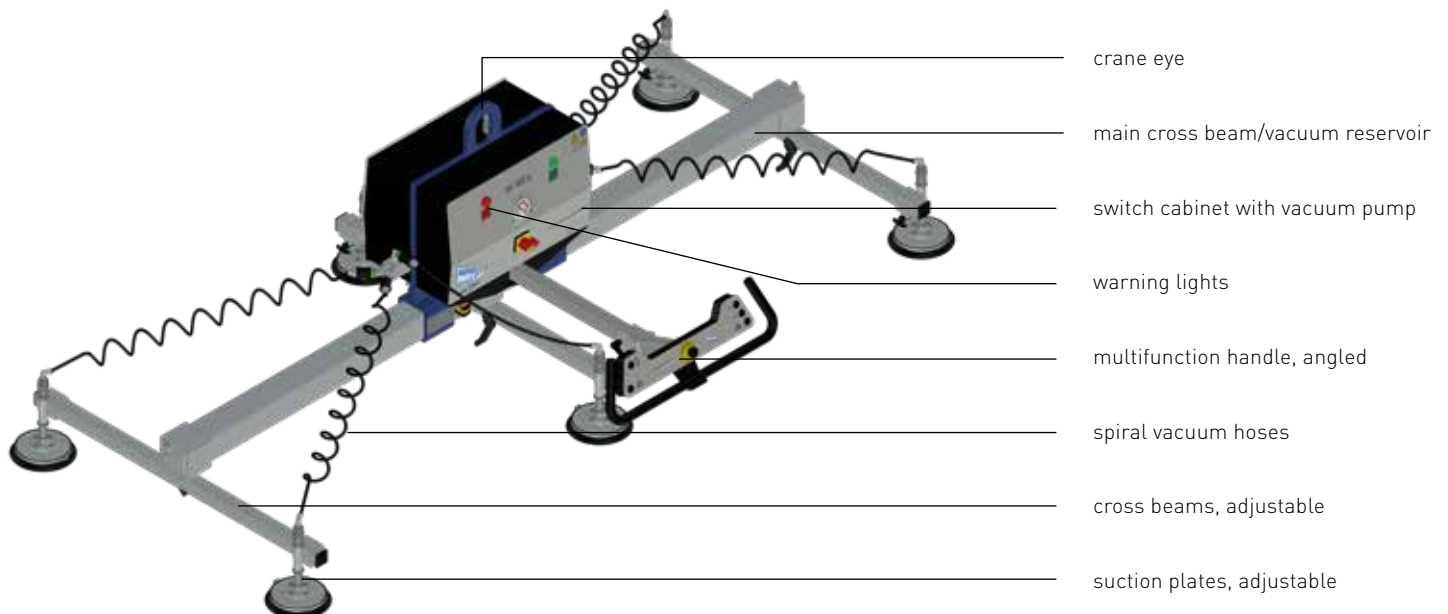
# TECHNICAL DATA

## TECHNICAL DATA

Type	Loading capacity	Main beam (max.)	Crossbars (max.)	Suction plates / diameter
AERO 150/4R	150 kg	2200 mm	1000 mm	4 / 160 mm
AERO 150/6R	150 kg	2200 mm	1000 mm	6 / 110 mm
AERO 250/4R	250 kg	2200 mm	1000 mm	4 / 170 mm
AERO 250/8R	250 kg	2200 mm	1000 mm	8 / 120 mm
AERO 350/6R	350 kg	2200 mm	1000 mm	6 / 160 mm
AERO 400/6R	400 kg	2200 mm	1000 mm	6 / 170 mm
AERO 400/8R	400 kg	2200 mm	1000 mm	8 / 160 mm
AERO 600/4R	600 kg	2200 mm	1100 mm	4 / 270 mm
AERO 600/6R	600 kg	2200 mm	1100 mm	6 / 210 mm
AERO 800/8R	800 kg	2200 mm	1100 mm	8 / 210 mm
AERO 900/6R	900 kg	2200 mm	1100 mm	6 / 270 mm
AERO 1000/6R	1000 kg	2200 mm	1100 mm	6 / 270 mm
AERO 1000/8R	1000 kg	2200 mm	1100 mm	8 / 250 mm
AERO 1200/8R	1200 kg	3000 mm	1100 mm	8 / 270 mm
AERO 1500/6R	1500 kg	3000 mm	1100 mm	6 / 350 mm
AERO 1500/10R	1500 kg	3000 mm	1100 mm	10 / 270 mm
AERO 2000/8R	2000 kg	3000 mm	1500 mm	8 / 350 mm



## CONSTRUCTION STANDARD UNIT - ADVANCE VERSION



# SWIVELING BY 90°

## FLEXIBLE TURNING AND MOVING: VACUUM LIFTER WITH SWIVEL FUNCTION

For many applications it is not only necessary to move and transport plate material, changing the position of the workpiece is important as well. To be able to perform both tasks in one work step our **swiveling devices** are the suitable vacuum lifter.

### APPLICATION

- Swiveling 90° of large sheet metal, plastic plates, coated wood plates and glass panes
- Dimensions from 800 x 1000 mm to 3400 x 1200 mm
- Load capacity from 125 kg to 1000 kg
- Loading and unloading of e.g. vertical saws or bending
- Unloading and storage of standing goods

### YOUR BENEFITS

- Gentle handling - no scratching
- Universally effective, even with non-magnetisable materials
- Robust long-term solution, low maintenance and process reliability
- Low follow-up costs, energy-saving and durable
- More satisfied employees through physical relief

### EXTENSIONS FOR INDIVIDUALIZATION

- Automatic switch-off, reduces energy consumption
- Motor protection switch, extends the service life
- Additional visual warning signals, increase safety
- Angled operating handle, increases mobility
- Individually lockable suction plates and crossbars
- Crane holding bag, simplifies the operation
- Expanded control panel, provides simplified guidance
- Individual suction plates and seals for your needs
- Industry 4.0 features: Status query and error messages can be transferred via smartphone or touch panel
- Parking feet
- Cargo lighting
- ...and much more.



#### Picture description

Fig. 1: Suction plate in vertical pick-up position • Fig. 2: Pivoting device ADVANCE version • Fig. 3: Pivoting device standard version • Fig. 4 (right): Pivoting device AERO 650-16R standard version

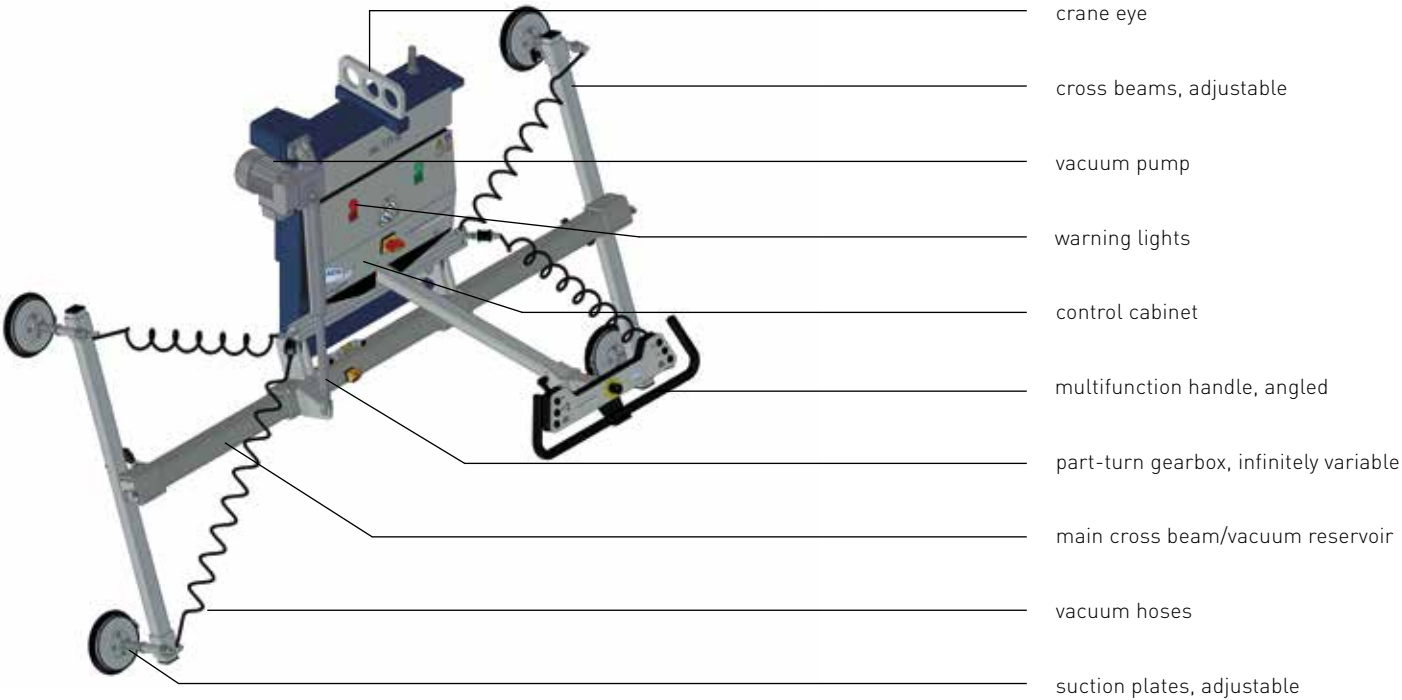
# TECHNICAL DATA

## TECHNICAL DATA

Type	Load capacity	Main beam	Suction plates / diameter
AERO 125/4R-90°	125 kg	1800 mm	4 / 170 mm
		2200 mm	
		3000 mm	
AERO 125/8R-90°	125 kg	1800 mm	8 / 120 mm
		2200 mm	
		3000 mm	
AERO 125/12R-90°	125 kg	3000 mm	12 / 110 mm
AERO 250/4R-90°	250 kg	1800 mm	4 / 250 mm
		2200 mm	
		3000 mm	
AERO 250/8R-90°	250 kg	1800 mm	8 / 170 mm
		2200 mm	
		3000 mm	
AERO 250/12R-90°	250 kg	3000 mm	12 / 160 mm
AERO 500/4R-90°	500 kg	1800 mm	4 / 350 mm
		2200 mm	
		3000 mm	
AERO 500/8R-90°	500 kg	1800 mm	8 / 250 mm
		2200 mm	
		3000 mm	
AERO 500/12R-90°	500 kg	3000 mm	12 / 210 mm
AERO 1000/8R-90°	1000 kg	1800 mm	8 / 350 mm
		2200 mm	
		3000 mm	
AERO 1000/12R-90°	1000 kg	3000 mm	12 / 270 mm



## CONSTRUCTION SWIVEL UNIT - ADVANCE VERSION



# TURNING BY 180°

## TURN THINGS AROUND: VACUUM LIFTER WITH REVERSING FUNCTION

In addition to swiveling, it can be also necessary to turn the transported goods around by 180°. Especially when processing workpieces on both sides, such as painting or in quality control, **turning devices** offer optimum conditions for an efficient process.

### APPLICATION

- Turning and flipping up to 180° of large sheets, plastic panels, coated wooden panels and glass panes
- Dimensions up to 3200 x 1100 mm
- Load capacity from 125 kg to 250 kg
- Loading and unloading at machines or work tables
- Transfer and turning of workpieces on production lines
- Processing on both sides, also directly on the vacuum lifter

### YOUR BENEFITS

- Electromotive stepless turning device
- Gentle handling - no scratching
- Universally effective, even with non-magnetisable materials
- Robust long-term solution, low maintenance and process reliability
- Low follow-up costs, energy-saving and durable
- More satisfied employees through physical relief

### EXTENSIONS FOR INDIVIDUALIZATION

- Automatic switch-off, reduces energy consumption
- Motor protection switch, extends the service life
- Additional visual warning signals, increase safety
- Angled operating handle, increases mobility
- Individually lockable suction plates and crossbars
- Crane holding bag, simplifies the operation
- Expanded control panel, provides simplified guidance
- Individual suction plates and seals for your needs
- Industry 4.0 features: Status query and error messages can be transferred via smartphone or touch panel
- Parking feet
- Cargo lighting
- ... and much more.



#### Picture description:

Fig. 1, 2, 4 (right): Turning device in the production of insulating elements • Fig. 3: Turning device at sheet metal working plant, 1,000 kg load capacity

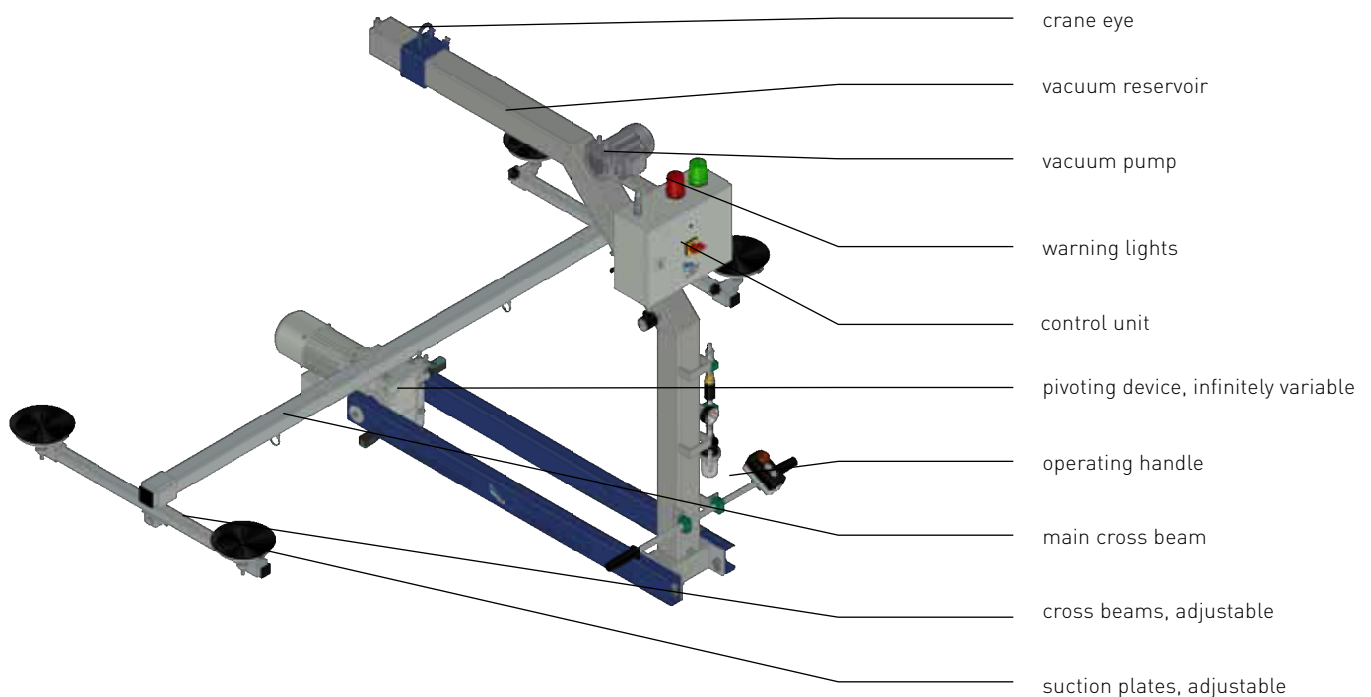
# TECHNICAL DATA

## TECHNICAL DATA

Type	Load capacity	Main beam	Suction plates / diameter
AERO 125/4R-180°	125 kg	1800 mm	4 / 170 mm
		2200 mm	
		3000 mm	
		2200 mm	4 / 250 mm
AERO 125/8R-180°	125 kg	2200 mm	8 / 160 mm
		1800 mm	
		3000 mm	
AERO 125/12R-180°	125 kg	2200 mm	12 / 110 mm
		3000 mm	12 / 120 mm
		2200 mm	4 / 250 mm
AERO 250/4R-180°	250 kg	1800 mm	4 / 270 mm
		3000 mm	
		2200 mm	
AERO 250/8R-180°	250 kg	2200 mm	8 / 160 mm
		1800 mm	8 / 210 mm
		3000 mm	
AERO 250/12R-180°	250 kg	2200 mm	12 / 160 mm



## CONSTRUCTION TURNING DEVICE - STANDARD AERO VERSION



# HEAVY LOAD UNITS FOR SHEETS

## HEAVY TASK? NOTHING EASIER THAN THAT! VACUUM LIFTER FOR SHEET METAL UP TO 60 TONS

When building ships, pipelines or wind power towers, sheets of enormous size and weight are processed. AERO-LIFT has specialised in the transport of such heavyweights with **heavy load vacuum lifting devices** and proves that even loads of up to 60,000 kg are no obstacle to the use of vacuum technology.



### APPLICATION

- Horizontal transport of sheet metal and sheet elements
- Sheets up to 60,000 kg weight and 70m<sup>2</sup> area
- Loading and unloading of laser and water cutting systems, bending machines or presses
- Use in sheet metal production and processing in shipyards or in the construction and transport of pipeline or tunnel elements for wind power plants
- Manufacturing of large-volume tanks and pipes

### YOUR BENEFITS

- High work safety: avoidance of risky transport procedures with belts or clamps
- Accelerated process: operation of the device by an employee via radio remote control
- Gentle handling - no scratching
- Universally effective, even with non-magnetisable materials
- Robust long-term solution, low maintenance and process reliability
- Low follow-up costs, energy-saving and durable
- More satisfied employees through physical relief

### EXTENSIONS FOR INDIVIDUALIZATION

- Automatic switch-off, reduces energy consumption
- Motor protection switch, extends the service life
- Additional visual warning signals, increase safety
- Individually lockable suction plates and crossbars
- Expanded control panel, provides simplified guidance
- Individual suction plates and seals for your needs
- Parking feet
- Cargo lighting
- ... and much more.



### Picture description

Fig. 1: Vacuum lifting device with 10,000 kg load capacity • Fig. 2: Vacuum lifting device with 14,000 kg load capacity • Fig. 3: Vacuum lifting device with 50,000 kg load capacity

## NO UPPER LIMIT: INDIVIDUAL SOLUTIONS FOR BIG LOADS

How can huge rotor blades, gigantic towers or concrete slabs weighing several tons be moved as efficiently, safely and gently as possible? With many years of experience in lifting and moving enormously heavy and unwieldy loads with vacuum technology, AERO-LIFT realizes every seemingly impossible task.

### SOLUTIONS FOR THE ENERGY INDUSTRY

Vacuum lifter can be used in many areas in the construction of wind turbines. The customized lifting devices can be used, for example, to transport **towers, rotor blades, nacelles, foundations** or **GRP elements** and are suitable for both indoor and outdoor use. The special solution shown on the right with the pendulum suction plates enables flexible and gentle movement of rotor blades. Vacuum technology is also used profitably in the construction of aircrafts, helicopters and airships.



### SOLUTIONS FOR CONCRETE SLABS

Large-format, heavy concrete slabs are used in many areas, e.g. in the construction of **industrial halls, prefabricated houses** and buildings for agriculture and forestry, in **infrastructure** and **road construction**. Order picking in the production of such concrete elements is carried out reliably and efficiently by a vacuum lifting device. The device can be operated safely by only one person via radio remote control. Structured concrete slabs, granite slabs and natural stone can also be moved with vacuum technology using special seals to protect the material.



### BATTERY-POWERED SOLUTIONS

Heavy-duty vacuum lifting devices are also used outdoors on construction sites, e.g. for **laying concrete ceiling** and **ramp slabs**. In this case, a power generator ensures that the lifting device can be used flexibly and independently of the mains supply. The electrically operated mechanical safety claws on both sides increase safety when transporting concrete slabs weighing up to 6,000 kg. The machine functions can be conveniently triggered via a control panel.



## BIG LOADS INDIVIDUAL

# SPECIFIC SOLUTIONS

## YOUR PROBLEM IS OUR STRENGTH: APPLICATION SPECIFIC DEVICES

The metal industry not only demands the lifting and moving of sheet metal. In various sectors of the industry, bulky, bent or small workpieces must also be transported. Thanks to our many years of experience, we can also find the right solution for your individual lifting task.

### VACUUM BOX GRIPPER

Finished products such as **cabinets, metal housings, boxes** or **pre-assembled parts**, e.g. in household appliance production, can also be gently sucked in at the flanks and transported by crane to final assembly or packaging for dispatch. Due to the special configuration of the device, the components are sucked in from the side. This allows comfortable and damage-free handling of the products. It does not matter whether the goods to be transported are horizontal or vertical - vacuum box gripper can handle the goods flexibly and transport them to their destination.



### MAINS-INDEPENDENT VACUUM LIFTERS

Especially in environments where the power supply is difficult, mains-independent vacuum lifters such as the BASIC-LIFT: This device is a real all-rounder and is suitable for many applications: **Sheets, cut to size, barrels, buckets, concrete, housings** and wherever a reliable and simple device is required. Without a vacuum generator or annoying power cables, this vacuum lifting device works purely mechanically. Despite its compact design, it can lift loads of up to 2,200 kg, depending on the construction.



### VACUUM LIFTER WITH QUICK CHANGE UNIT

The vacuum lifter of the AERO-FLEX series offer extremely high flexibility. With a load-bearing capacity of up to 250 kg and an optional quick-change coupling for different suction plates, the vacuum lifter effortlessly lifts a wide variety of loads such as **barrels, crates** or **sheet materials**. Changing to other transport goods is quick and requires no tools. The AERO-FLEX is also a representative of the battery-operated vacuum lifting devices and can easily withstand up to 100 work cycles with one charge of the 24V battery.



# CUSTOMIZED SOLUTIONS

## SOLUTIONS FOR TUBULAR ELEMENTS

Vacuum lifting devices are also used for curved workpieces such as **tubes, rods, drums** or solid material from **cut parts**. Extra flexible suction plates adapt to the curves of the material. Nothing is impossible here. The vacuum lifter shown on the right, for example, enables vertical pick-up and subsequent swivelling of the pipe parts. Two adaptable suction plate units enable the handling of different pipe diameters.



## SOLUTIONS FOR CURVED METAL SHEETS

Curved, **convex plates**, e.g. for the construction of tanks and silos, can be picked up and transported with AERO-LIFT vacuum lifting devices (type AERO 1300/8R-SK2 in the picture). The pendulum suspended suction plates allow an adaptation to the curved surface of the workpieces. Plates with a maximum length of 7,000 mm and a weight of 1,300 kg can be transported with this vacuum lifter. Further special solutions for the sheet metal sector can be found at [aero-lift.de/sheetmetal](http://aero-lift.de/sheetmetal).



## SOLUTIONS FOR THE AUTOMOTIVE INDUSTRY

When handling **automobile** and **vehicle parts**, no damage may be caused to the material. Special vacuum lifter transport, swivel and turn such workpieces precisely and gently. Even irregular shaped parts, such as fuel tanks or engine hoods, are transported in a user-friendly manner using flexible lightweight designs and robust components. Further solutions can be found at [aero-lift.de/automotive](http://aero-lift.de/automotive).





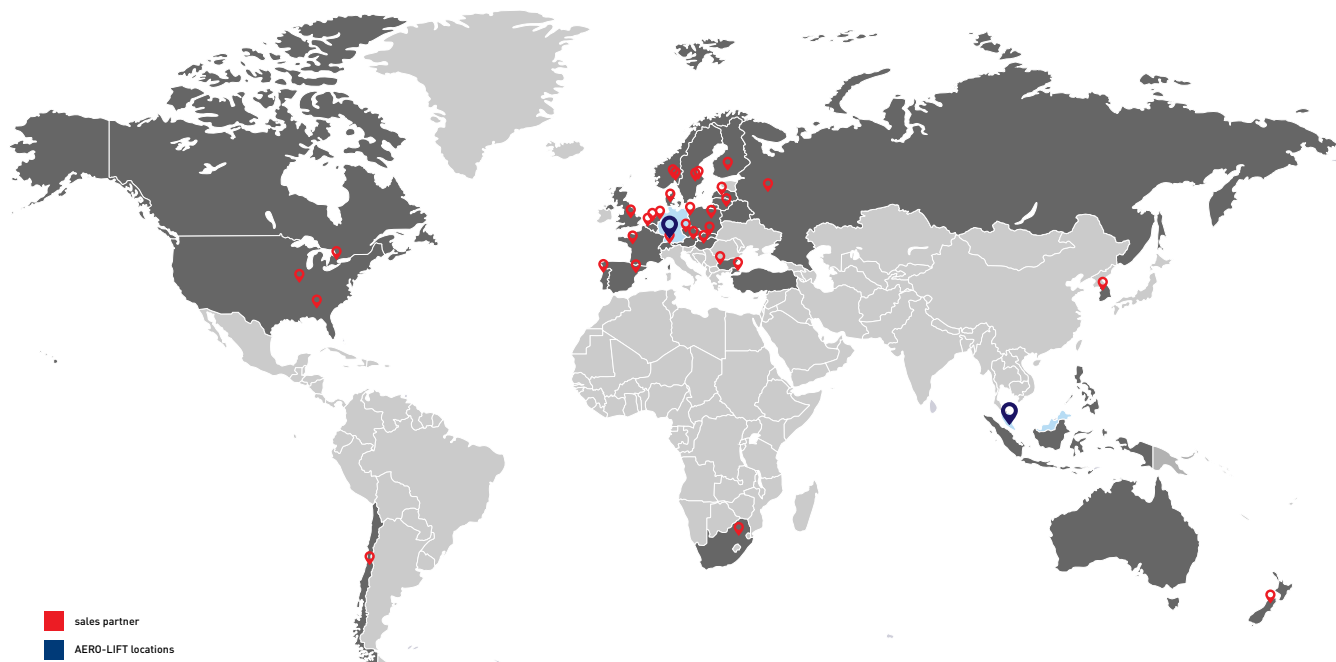
## WE ARE ON THE SPOT FOR YOU: AERO-LIFT SALES INTERNATIONAL

**We support you in more than 30 countries.**



Our international expert network of local sales partners gives you quick and easy access to our handling solutions - wherever you are.

Locate the AERO-LIFT partner in your area now: [aero-lift.de/international](http://aero-lift.de/international).



AERO-LIFT vacuum lifting devices are designed and manufactured in accordance with the current safety standards EN 13155 and ASME B30 as well as tested and documented in accordance with the valid accident prevention regulations BGR 500 and Machinery Directive 2006/42/EC, Annex II A.

The final acceptance test is carried out in accordance with VDE 0113 and EN 60204. Welding work is carried out professionally in accordance with the specific standards. A testable statics is available

Data, information (in particular also information on load capacity), illustrations, descriptions and dimensions are not binding and are for illustration purposes only. They have been checked with the greatest care. However, if incorrect or incomplete information, errors or misprints should occur, we assume no liability. We reserve the right to make changes. Production and material-related dimensional deviations reserved. Status: August 2020, No. 2081328/03

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